

**DETAILED ACTION****EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. John P. Wooldridge (Registration No. 38,725) on January 31, 2008.

2. The Application has been amended as follows:

In the claims:

- Claim 1, "I<sub>n</sub>" (page 7, line 10) has been changed to ---I<sub>N</sub>---
- Claim 1, "A<sub>AN</sub>" (page 7, line 16) has been changed to ----A<sub>IQN</sub>----
- Claim 1, "AN" (page 7, line 16) has been changed to ---IQN---
- Claim 2, "I<sub>n</sub>" (page 8, line 10) has been changed to ---I<sub>N</sub>---
- Claim 2, "A<sub>AN</sub>" (page 8, line 16) has been changed to ----A<sub>IQN</sub>----
- Claim 2, "AN" (page 8, line 16) has been changed to ---IQN---
- Claim 4, "I<sub>n</sub>" (page 10, line 5) has been changed to ---I<sub>N</sub>---
- Claim 4, "A<sub>AN</sub>" (page 10, line 11) has been changed to ----A<sub>IQN</sub>----
- Claim 4, "AN" (page 10, line 11) has been changed to ---IQN---
- Claim 6, "I<sub>n</sub>" (page 11, line 5) has been changed to ---I<sub>N</sub>---
- Claim 6, "A<sub>AN</sub>" (page 12, line 1) has been changed to ----A<sub>IQN</sub>----
- Claim 6, "AN" (page 12, line 1) has been changed to ---IQN---

- Claim 7, "I<sub>n</sub>" (page 12, line 8) has been changed to ---I<sub>N</sub>---
- Claim 7, "A<sub>AN</sub>" (page 12, line 12) has been changed to ----A<sub>IQN</sub>---
- Claim 7, "AN" (page 13, line <sup>13</sup>~~11~~ *ALG 3/7/08*) has been changed to ---IQN---
- Claim 8, "I<sub>n</sub>" (page 13, line 9) has been changed to ---I<sub>N</sub>---
- Claim 8, "A<sub>AN</sub>" (page 14, line <sup>15</sup>~~13~~ *ALG 3/7/08*) has been changed to ----A<sub>IQN</sub>---
- Claim 8, "AN" (page 14, line <sup>15</sup>~~13~~ *ALG 3/7/08*) has been changed to ---IQN---
- Claim 10, "I<sub>n</sub>" (page 15, line 5) has been changed to ---I<sub>N</sub>---
- Claim 10, "A<sub>AN</sub>" (page 15, line 10) has been changed to ----A<sub>IQN</sub>---
- Claim 10, "AN" (page 15, line 10) has been changed to ---IQN---
- Claim 12, "I<sub>n</sub>" (page 16, line 5) has been changed to ---I<sub>N</sub>---
- Claim 12, "A<sub>AN</sub>" (page 16, line 10) has been changed to ----A<sub>IQN</sub>---
- Claim 12, "AN" (page 16, line 10) has been changed to ---IQN---

**Reasons for Allowance**

3. Claims 1-12 are allowed.
4. The following is an examiner's statement of reasons for allowance:
5. With respect to claim 1, the prior art of record fails to teach or suggest a digital intermediate frequency Quadrature Amplitude modulation modulator using parallel processing without the use of a multiplier; comprising: a plurality of look-up tables (LUTs) operatively connected to receive and store said I and Q locations, wherein the I LUTs are configured I<sub>1</sub> to I<sub>N</sub>, wherein N is the highest number of I LUTs of said plurality of LUTs, wherein the Q LUTs are configured Q<sub>1</sub> to Q<sub>X</sub>, wherein X is the highest number of Q LUTs of said plurality of LUTs; a plurality of adders operatively connected to